



SEQUENCE LISTING

<110> Steward, Lance E.
Fernandez-Salas, Ester
Herrington, Todd M.
Aoki, Kei R.

<120> Leucine-Based Motif and Clostridial Neurotoxins

<130> ALLE0014-101 (17355 CIP1-(BOT))

<140> US 09/910,346

<141> 2001-07-20

<150> US 09/620,840

<151> 2000-07-21

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<170> PatentIn version 3.2

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Ser Glu Arg Asp Val Leu Leu
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35 40 45

Thr Phe Thr Asn Pro Glu Glu Gly Asp Leu Asn Pro Pro Pro Glu Ala
50 55 60

Lys Gln Val Pro Val Ser Tyr Tyr Asp Ser Thr Tyr Leu Ser Thr Asp
65 70 75 80

Asn Glu Lys Asp Asn Tyr Leu Lys Gly Val Thr Lys Leu Phe Glu Arg
85 90 95

Ile Tyr Ser Thr Asp Leu Gly Arg Met Leu Leu Thr Ser Ile Val Arg
100 105 110

Gly Ile Pro Phe Trp Gly Gly Ser Thr Ile Asp Thr Glu Leu Lys Val
115 120 125

Ile Asp Thr Asn Cys Ile Asn Val Ile Gln Pro Asp Gly Ser Tyr Arg
130 135 140

Ser Glu Glu Leu Asn Leu Val Ile Ile Gly Pro Ser Ala Asp Ile Ile
145 150 155 160

Gln Phe Glu Cys Lys Ser Phe Gly His Glu Val Leu Asn Leu Thr Arg
165 170 175

Asn Gly Tyr Gly Ser Thr Gln Tyr Ile Arg Phe Ser Pro Asp Phe Thr
180 185 190

Phe Gly Phe Glu Glu Ser Leu Glu Val Asp Thr Asn Pro Leu Leu Gly
195 200 205

Ala Gly Lys Phe Ala Thr Asp Pro Ala Val Thr Leu Ala His Glu Leu
210 215 220

Ile His Ala Gly His Arg Leu Tyr Gly Ile Ala Ile Asn Pro Asn Arg
225 230 235 240

Val Phe Lys Val Asn Thr Asn Ala Tyr Tyr Glu Met Ser Gly Leu Glu
245 250 255

Val Ser Phe Glu Glu Leu Arg Thr Phe Gly Gly His Asp Ala Lys Phe
260 265 270

Ile Asp Ser Leu Gln Glu Asn Glu Phe Arg Leu Tyr Tyr Tyr Asn Lys
275 280 285

Phe Lys Asp Ile Ala Ser Thr Leu Asn Lys Ala Lys Ser Ile Val Gly
290 295 300

Thr Thr Ala Ser Leu Gln Tyr Met Lys Asn Val Phe Lys Glu Lys Tyr
305 310 315 320

Leu Leu Ser Glu Asp Thr Ser Gly Lys Phe Ser Val Asp Lys Leu Lys
325 330 335

Phe Asp Lys Leu Tyr Lys Met Leu Thr Glu Ile Tyr Thr Glu Asp Asn
340 345 350

Phe Val Lys Phe Phe Lys Val Leu Asn Arg Lys Thr Tyr Leu Asn Phe
355 360 365

Asp Lys Ala Val Phe Lys Ile Asn Ile Val Pro Lys Val Asn Tyr Thr
370 375 380

Ile Tyr Asp Gly Phe Asn Leu Arg Asn Thr Asn Leu Ala Ala Asn Phe
385 390 395 400

Asn Gly Gln Asn Thr Glu Ile Asn Asn Met Asn Phe Thr Lys Leu Lys
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Tyr Tyr Lys Ala Phe Lys Ile Thr Asp Arg Ile Trp Ile Ile Pro Glu
35 40 45

Arg Tyr Thr Phe Gly Tyr Lys Pro Glu Asp Phe Asn Lys Ser Ser Gly
50 55 60

Ile Phe Asn Arg Asp Val Cys Glu Tyr Tyr Asp Pro Asp Tyr Leu Asn
Page 7

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Thr	Asn	Asp	Lys	Lys 85	Asn	Ile	Phe	Phe	Gln 90	Thr	Leu	Ile	Lys	Leu 95	Phe
Asn	Arg	Ile	Lys 100	Ser	Lys	Pro	Leu	Gly 105	Glu	Lys	Leu	Leu	Glu 110	Met	Ile
Ile	Asn	Gly 115	Ile	Pro	Tyr	Leu	Gly 120	Asp	Arg	Arg	Val	Pro 125	Leu	Glu	Glu
Phe	Asn 130	Thr	Asn	Ile	Ala	Ser 135	Val	Thr	Val	Asn	Lys 140	Leu	Ile	Ser	Asn
Pro 145	Gly	Glu	Val	Glu	Arg 150	Lys	Lys	Gly	Ile	Phe 155	Ala	Asn	Leu	Ile	Ile 160
Phe	Gly	Pro	Gly	Pro 165	Val	Leu	Asn	Glu	Asn 170	Glu	Thr	Ile	Asp	Ile 175	Gly
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Met	Lys	Phe 195	Cys	Pro	Glu	Tyr	Val 200	Ser	Val	Phe	Asn	Asn 205	Val	Gln	Glu
Asn	Lys 210	Gly	Ala	Ser	Ile	Phe 215	Asn	Arg	Arg	Gly	Tyr 220	Phe	Ser	Asp	Pro
Ala 225	Leu	Ile	Leu	Met	His 230	Glu	Leu	Ile	His 235	Val	Leu	His	Gly	Leu	Tyr 240
Gly	Ile	Lys	Val	Asp 245	Asp	Leu	Pro	Ile	Val 250	Pro	Asn	Glu	Lys	Lys 255	Phe
Phe	Met	Gln	Ser 260	Thr	Asp	Thr	Ile	Gln 265	Ala	Glu	Glu	Leu	Tyr 270	Thr	Phe
Gly	Gly	Gln 275	Asp	Pro	Ser	Ile	Ile 280	Ser	Pro	Ser	Thr	Asp 285	Lys	Ser	Ile
Tyr 290	Asp	Lys	Val	Leu	Gln	Asn 295	Phe	Arg	Gly	Ile	Val 300	Asp	Arg	Leu	Asn
Lys 305	Val	Leu	Val	Cys	Ile 310	Ser	Asp	Pro	Asn	Ile 315	Asn	Ile	Asn	Ile	Tyr 320
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330

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Lys Tyr Ser Ile Asp Val Glu Ser Phe Asn Lys Leu Tyr Lys Ser Leu
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Met Leu Gly Phe Thr Glu Ile Asn Ile Ala Glu Asn Tyr Lys Ile Lys
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Thr Arg Ala Ser Tyr Phe Ser Asp Ser Leu Pro Pro Val Lys Ile Lys
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Asn Leu Leu Asp Asn Glu Ile Tyr Thr Ile Glu Glu Gly Phe Asn Ile
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